# FLIES CAN BE ROUTED DECLARES DR. HODGE

**University of Oregon Man Would Catch Practically All Original Pairs With One Exterminator.**

**ALSO ADVOCATES MAKING HATCHING PLACES UNTENABLE**

**Believes It Possible to Capture All of Original Pairs With Fly Exterminator at Each Barn.**

Mr. Groceryman, Mr. Farmer, Mr. Householder, how much would it be worth to you to have your place of business or your kitchen free from flies this summer?

Make an estimate in dollars. Consider the value of food damaged or spoiled by flies; consider the season's comfort, of yourselves, your families and your stock; consider the niceties of living; above all, consider the danger to your baby's life, if you have a baby ;consider the possibility of the doctor's bills. How much is it worth then? Five dollars, $50, $150?

Now if you and your neighbors suddenly are told of a practicable plan to get rid of fly pest this summer by means of a little co-operation and effort, and with expenditure of practically no money at all, how about it? Will you follow the prescribed course and spend your first summer free from the fly plague? If you will, it can be done.

The authority for this statement is Dr. Clifton F. Hodge, professor of social biology at the University of regon. Dr. Hodge, who is by now too well-known over the state to be regarded as a visionary, is devoting his entire time to certain advances in the state along lines of civic biology. Among these is the elimination of flies.

The experience of other communities has demonstrated that a condition of freedom from flies is not an Arabian Nights dream. The cities of Worcester, Cleveland, Washington, Baltimore, Johannesburg, South Africa, the Panama canal zone, and many other places have proved the entire feasibility of subduing flies. Of course, there are still flies in Cleveland and in Washington and in Baltimore and in Johannesburg, but whole sections of these cities have been made entirely free, and had the co-operation all over the cities been of the same character as it was in these districts, the whole cities would have bee nfree. It is possible for one section of a city to become flyless where another section may still be fly-ridden, because a fly does not commonly travel farther than 1,500 feet during its lifetime.

The success of Dr. Hodge's fly plan in eastern communities was such that this winter letters are pouring in upon him from nearly every civilized country requesting instructions. He answers them all.

**Must Follow Instruction.**

"Any community in Oregon may become flyless, or practically so, if it will consistently follow directions," says Dr. Hodge. "The plan already has been pronounced feasible and reasonably easy by Medford, Portland and Eugene, and is under consideration in several other Oregon cities. It should by no means be confined to cities, towns and villages, however; every farm is a community by itself, so far as flies are concerned, and every farmhouse and farmyard, if another careless farmer does not live within, say, a quarter of a mile, can become so nearly flyless as to make this summer of 1914 infinitely pleasanter than that of 1913.

"Here is the theory of this plan: Pass it on to yourselves.

"As winter breaks up and spring begins to come, there are comparatively few flies. To raise additional flies, each female must follow certain methods. These methods are known. Figure this problem for yourselves; a fly has been known to live for several months and to produce six batches of eggs at intervals of from eight to ten days, consisting of from 120 to 150 eggs at a batch, and in 10 days these eggs are flies. Beginning, say, April 1, we shall have:

April 10, 152 flies.
June 10, 34,302 flies.
July 10, 72,820,800 flies.
August 1, 5,746,670,500 flies—143,675 bushels of flies from a single pair.

"Why not put that pair out of business April 1? (or May 1, according to season and locality, i. e., as long as flies continue to emerge from winter quarters in any particular section.)

"In other words, do this:

"Capture the original pairs in early spring.

"Make the hatching places untenable.

"I believe it possible to capture practically all original pairs with one fly exterminator at each house or barn."

**How to Make Fly Trap.**

Dr Hodge gives the following directions for making and using stable window fly traps:

The principle upon which fly traps are usually made is that flies tend to crawl up toward the light (unless seeking food by smell, or a place in which to oviposit, when they may crawl downward into dark cracks.) Hence, by arranging cracks and holes in screen wire pointing upward, we can transform any kind of a box, with no cracks or holes at the top through which a fly can escape, into an effective fly trap. For the top of such a box trap a light frame covered with screen wire is better than wide board, because it lets in the light, and it is less likely to spring or warp and so open cracks through which the flies may escape.

For use in a stable window these traps may be made of any size to fit the opening, or they may be made smaller than the opening and the rest of the space fitted with boards or gunny sacking. The trap for a stable should be fitted to the most likely window of stable or stable cellar—the window on the sunny side, out of the way of prevailing winds, and the other windows covered by hanging gunny sacks over them. These cost no more than if hung elsewhere for the time; they flap in the wind and so need not interfere with ventilation, and they darken the other windows so that all flies about the stable will try to get in or out by the trap window and will be caught going or coming. If carefully worked, early in the season, the animals being kept in during the heat of the day, for a few consecutive days now and then, it is possible practically to rid a barnyard of stable (infantile paralysis flies) horn and black flies that are not attracted to baited traps.

If the stable and cellar are widley open and full of cracks, the trap should be made without bottom board and set over a ridge of attractive bait on the manure pile or in the most likely place about the barnyard, and all other fly foods kept out of the way as far as possible.

**Specifications.**

Suppose the trap is to be 26 inches wide, 30 inches high and 12 inchtes thick, we shall need:

Two hanlf-inch boards, 12 inches wide and 80 inches long, for the ends.

Four strips one-half inch by 1 inch, 26 inches long for top frame and for the bottom.

Two strips, one-half inch by 1 inch, 10 inches long, end pieces of top frame.

Two strips 1x1 inches, 25 inches long to go between the ends at top, and four similar strips 10 inches long to cleat end boards at top and bottom.

Two strips 1-2x1-2 inch, 26 inches long, to support wire at bottom.

About eight feet of screen wire 26 inches wide.

Suitable nails and upholstering tacks.

With these things all collected, the putting of theme together is much simpler than writing a description of how it is done.

**Directions for Making.**

1. Notch top corners of end boards 1-2 inch down and 1 inch in—to hold top frame in place.

2. Cut out bottom corners of end boards to receive the bottom strips—on outer side of each board make a notch 1-4 inch deep and 1-2 inch wide, the top of which is 1 inch from bottom of board. Then 1-2 inch in cut a notch 1-2 inch wide and one inch up. When these strips are nailed in, by cutting in the ends of the 1-2 inch strips 1-4 inch, this will leave a 1-4 inch crack opening upward between the bottom strips.

3. Nail the 1-inch by 1-inch strips between shoulders of end boards at top.

4. Nail in the bottom strips.

5. Square up end of wire and cut off a piece, across roll, 19 inches long and fold over raw edges very flat 1-2 inch along each side. Then fold and charply along middle line. Snip in 1-2 inch at fold at either end and bend flaps outward so that the piece, when opened to a right angle, will form a ridge, or roof over the bottom of the trap, and fit smoothly inside. Tack the end flaps to end boards so that the edges can lap over the outer 1-2 inch strips.

6. Cut wire for sides about 32 inches long and wire for top frame 12 inches wide. Fold down raw edges 1-2 inch.

7. The trap folds of the sides are open, two inch pleats extending into the trap and pointing slightly upward. To make these, lay out a side piece on a smooth table or floor and fold over squarely across piece 12 inches from bottom end, and fold back two inches higher up. Make a similar pleat about 12 inches above the first. This will make two trap folds across the side wire.

8. Snip about 1-2 inch into the wire 6 inches below top of each pleat and at each angle of pleat and bend the 1-2 inch flaps back so that the folds can drop smoothly into the trap as the edges are tacked to the end boards. Begin tacking at bottom corners, tack along bottom strip, holding bottom ridge and side wire in place with some tacks. As tacking proceeds up the end boards pull open trap folds so that they are not sharper than about 45 degrees. The flies will not crawl up to the holes if the folds are too sharp.

9. Fit top frame and nail in cleats.

10. Punch holes about 1-4 inch in diameter every two inches in trap folds and every inch along crest of bottom ridge. Use a number of punches or ice picks or large spikes so as to keep the holes open until several or all are made.

11. If used in a window, fit a loose bottom board—so that the trap can be lifted off to bait, if necessary.

Traps of any size can be made on this plan.

**Thirty-Seven Quarts in Week.**

The first model of this trap merely set on a pile of filth where flies were swarming, caught 37 1-2 quarts in one week without bait or attention of any kind. If it is possible to trap the breeders at this rate, it would seem unnecessary for any farm or stable yard to suffer longer unde a plague of flies.

This form of trap works well, but anyone is welcome to make a better one. It is probably the simplest, most inexpensive and effective trap so for designed. Boys, in connection with their manual training, can make models for demonstration and can fit up the stables and barnyards of their neighborhoods, and if this is thoroughly done there may be no need of screen doors next summer.

Study and observe baits to which flies are most strongly attracted; fish or poultry cleanings, milk, except where flies have access to it about dairies where hogs are fed. In such places a mash mixed with yeast and fermenting actively will attract them most powerfully. Crab shells will attract flies from almost everything else.

Any farmer can make this trap with a little box lumber and some screen wire. It will pick up the breeders as fast as they come to the premises, not only of common house flies, but of stable and horn flies, black flies, mosquitoes and posibly bot flies.

The house fly hatches from an egg, laid usually in horse manure; passes through the maggot and puparial stages, and may emerge as an insect, fully grown in 10 days. Then it comes to the houses to feed, and buzzes about over an area of about 500 yards diameter for from 10 to 14 days before it matures its first batch of 120 to 150 eggs. It then continues to feed and fly about until, at intervals of probably 8 or 10 days, it has laid at least six batches of eggs.

**Attack on Breeding Places.**

To attack these breeding places, the following should be followed, says Dr. Hodge.

1. If possible, arrange to clean the stable into a manure spreader and apply to the land daily. The material will then dry or disintegrate too rapidly for eggs to hatch and for maggots to grow in it.

2. Store in a shed with window fitted with fly trap. Have concrete floors so that the maggots cannot burrow into the ground to pupate, and the manure can be cleaned at least once a week.

3. If neither of these methods is feasible, arrange window and baited traps to pick up the breeders as early in the season as possible and as fast as they appear in the premises.

Such practical personal help as Dr. Hodge's time will permit it available for any Oregon community. Flyless community campaigns can be undertaken by the civic authorities, by commercial clubs, by women's organizations or by organizations formed especially for the purpose. In all cases the aid of school authorities should be enlisted. Methods the first season may not be wholly effective, but we may learn from experience for 1915.

"A Flyless Oregon," may sound like a Utopian slogan, but Medford has already adopted as its slogan, "The Flyless City," and has set out to make good on it. Any other community in the state can do as much; any farmer can do as much. Then how about a really flyless Oregon—as a booster proposition in 1915?

## EVIDENCE OF LAMAR IS ALREADY COVERED IN SUIT.

[UNITED PRESS LEASED WIRE.]

Washington, March 5.—David Lamar the "wolf of Wall street," admitted this afternoon at the steel trust hearing before Interstate Commerce Commissioner Harlan that practically all the evidence he had given concerning the alleged acceptance by the United States Steel coproration of rebats from railroads and steamship companies in which he said it was interested, were covered in the pending dissolution suit against it. On his admission Harlan curtly adjourned the hearing.





# RAILROAD COMMISSION REPORTS MUCH WORK

**Increase of 274 Per Cent in Year, According to Annual Report Just Made Public in Salem.**

**RAILROADS SHOW GAIN IN THEIR OPERATING REVENUE.**

**Report Proceeds to Discuss Principles Applied tot Making the Rates of Public Utilities.**

Regulation of public utilities, together with steady growth of railroad business, has increased the work of the railroad commission of Oregon just 274 per cent in one year, measured by the volume of formal complaints handled. This is one of the features disclosed by the annual report of the commission for the year ending December 15, 1913, which has just been made public.

Chairman Frank J. Miller and his colleagues, Thomas K. Campbell and Clyde B. Aitchison, in telling the story of the year's work, have naturally covered a much broader field than usual, and the report is especially interesting in its explanation of the progress made in the new duties assigned by the public utilities act.

**Operating Revenue.**

The net operating revenue of all of the railroads of the state for the year ending June 30, 1913, was $8,632,743.82, the report shows, a gain of $686,156.25 over the figures for the previous year. Total operating revenue of all roads on state business was $14,865,885.53, of which $5,160,464.78 came from freight, $8,777,926.56 from passengers, $380,626.44 from other passenger train revenue, $233,429.75 from other transportation services, and $311,438 from sources other than transportation.

Oregon's proportion of interstate railroad revenue is almost equal to the state revenue, being $14,597,156.56, making the total rail revenue $29,463,042.09. The operating expense assigned to Oregon amounts to $19,261,509.90, leaving a net operating revenue for the railroad balance sheets of $10,201,532.19. As the taxes totalled $1,568,788.37, the clear net return stands at $8,632,743.82.

**Railroad Mileage.**

To total railroad mileage operated in the state is given as 3,278, of which 426 is electric road mileage. Increase in mileage in the state in the line owned is 64 miles, and 47 additional miles are shown to have been placed in operation. The electric roads show well in revenues in proportion to their mileage, the 426 miles of electric line having yielded $1,643,680.28 in net operating return, after deducting over half a million dollars in taxes, or about twice the return per mile, taken collectively, made by the steam lines.

Reviewing the great amount of work required to propery classify the utilities of the state, 1913 being the first year that electric, gas, water, telephone and street railway companies have been under regulation by the state, the report proceeds to discuss the principles applied to the making of rates, saying:

**Problem of Rate Making.**

"It was early apparent that considerable time would be required before rate making problems for the larger utilities of the state could be properly considered and solved. Rate making, as required by the law and by sound public policy is not a matter of guess work. To be upheld by the courts, to be permanent in results, to be just, alike to the public and to the corporations concerned, it must be founded upon exact information, and it must proceed upon a reasonable application of the laws governing the complex relations that have grown up around modern industrial conditions. The blind fixing of rates, upon inadequate information, or on information at all, as has been attempted in some instances within the public memory, cannot be defended either in law or in equity, and has nearly always resulted in confusion and disaster.

"The commission has therefore been constrained to proceed only over ground that has been prospected and tried. It is not bound by technical rules, and it does not need to adhere to outworn precedents unfitted to the day, but it has refused to depart from the reliable rules of progress: investigation, information, sanity, success.

**Does Not Figure on Guess Work.**

"So if in some instances the work has seemed slow, it is nevertheless being advanced as fast as facilities, funds and circumstances will permit. Accuracy, not guesswork, is required, and it is essential that the findings of the commission, when made, shall be demonstably correct—that is just so nearly correct as fallible human judgment will permit."

**Utility Companies Listed.**

It is stated that 226 utility companies have been listed under the jurisdiction of the commission and considerable progress made in the valuation of several of the larger utilities, this being necessary before rates are fixed. The report brings the narrative of the work performed down to December 15, 1913, and valuation investigations stated to be nearing completion are those of the Portland Railway, Light & Power company, Coos Bay Water company, St. Johns Water Works & Lighting company, Rogue River Water company of Grants Pass; Home Telephone & Telegraph company of southern Oregon, and the Salem Water, Light & Power company. Water plant valuation is under way at Dallas, also valuation of the Pacific Telephone & Telegraph company's plant at Oregon City, and it is stated that substantial reductions have been secured in light and power rates, without necessity for formal proceedings, in Dallas, Monmouth, Independence, Junction City, Corvallis and other towns of the Willamette valley.

Concerning the business handled by the commission during the year the report says:

"Listing of the complaints filed shows 352 informal railroad complaints, compared with 301 filed in 1912. The number of formal railroad matters filed was 59, compared with 47 the previous year. In the utilities branch, 183 informal complaints and 70 formal matters were docted. The increase in total number of formal complaints, which in most cases have necessitated hearings, from 47 in 1912 to 129 in 1913, or 274 per cent, indicates in a degree the expansion of the commission's work."

**Disposition of Complaints.**

Disposition made of these complaints is reported in detail, and the distinction between formal and informal procedure explained, the former being matters in which hearings are required to thresh out questions of rates or service, the informal being taken up for adjustment on a mere statement of the grievance. Of the informal matters, 251 out of 370 of those relating to railroads were satisfactorily settled, 27 are pending, 22 were dropped because of lack of purisdiction. Of the utility matters handled in like manner, 90 out of 135 are reported settled, 10 transferred, 5 pending, and 35 dropped because plalintiffs did not wish to go further.

Prominence is give to efforts by the commission to reduce the number of perilous crossings of railroads and highways. It is declared that many dangerous conditions can be eliminated with the co-operation of county courts and railroads themselves.

That the commission largely decreases the work of the courts by handling maters which otherwise would develop into lawsuits is one of the points advanced. In the one branch of track scale inspection, the expense of which is borne by the railroads, it is stated there has been a decrease of 65 per cent in claims presented to the railroads growing out of controversies over the weights of shipments.

**Refunding of Overcharges.**

Orders were made during the year for refunding $4,423 to shippers because of overcharges or of special circumstances appearing to justify reparation. Railroads and other carriers have filed 580 passenger and 475 freight schedules with the commission, and the utilities have added 469 rate schedules during the year.

"Valuation of the physical property of the Portland Railway, Light & Power company," says the report, "is the largest single task ever undertaken by the commission. The rates charged and service rendered by this company directly affect not less than one-third of the people of the state, and it is only by a comprehensive investigation that the numerous complaints arising in connection with the rates and service fo this company can be placed on a basis for equitable and satisfactory adjustment. The commission's experts have been employed upon this matter so far as their other work would permit, and outside experts have been specially engaged in order that the investigation might be advanced as rapidly as possible, and also because of the advantage accruing from consultation and counter-check in a work of this magnitude. Steady progress is being made and data assembled as fast as possible, looking to final hearing."

**Other Cases Covered.**

Other topics covered by the report, aside from the statistical portion, are cases that have been appealed to the courts, proceedings before the interstate commerce commission, manner of handling complaints, grade crossing problems, demurrage rules, railroad valuation, improvement of Corvallis & Eastern railroad between Corvallis and Yaquina, train delay reports, suspension of railroad tariffs, accident investigations, scope of work under the utilities act, methods of utility valuation, telephone and water rate cases, accounting department work, and commission merchant's act.

## WAGE INCREASES REFUSED.

[UNITED PRESS LEASED WIRE.]

Dubois, Pa., March 5.—The breach between the operators and coal miners of western Pennsylvania, Ohio, West Virginia, Indiana and Illinois widened yesterday when the operators flatly refused wage increases demanded by the United Mine Workers of America. Instead of meeting the demands, the operators insisted upon a 10 per cent reduction in all classes of mine labor.

## NO REPORT ON DORR CASE.

[UNITED PRESS LEASED WIRE.]

Boston, March 5.—The state parole board had not yet reported the result of its investigation into the merits of the petition for clemency submitted by William Dorr of Stockton, Cal., accused of murdering his uncle, James Marsh, at Lynn. It was expected the report would be filed with the governor next Wednesday.